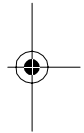
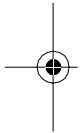


Cat. No. 32-1235

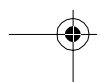
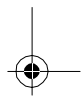
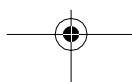
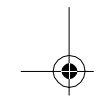
OWNER'S MANUAL

Please read before using this equipment.

2-Channel Professional Wireless Audio Link System



OPTIMUS®



FEATURES

Your Optimus 2-Channel Professional Wireless Audio Link System is designed for use with public address systems, musical instrument amplifiers, headset microphones, or other audio systems. The system's long range (150 feet), wide-range frequency response (100–12,000 Hz), good signal-to-noise ratio (90 dB), and low distortion (1.0%) let you use it anywhere you would use a conventional microphone.

The transmitter's innovative design lets you link musical instruments, headset microphones, or other audio sources to a central mixer or amplifier using state-of-the-art 170 MHz FM wireless technology.



The transmitter's low-battery indicator and three-position switch help you avoid last-minute battery failures.

The receiver has both microphone- and line-level outputs for easy connection to any amplifier, mixing board, or recorder, and you can use both outputs at the same time. And, the receiver's volume control lets you easily balance the receiver's output with other sound sources.

Be sure to read this manual completely before you use the system.

Note: You need one 9-volt battery (not supplied) to power the system.

Warning: To prevent fire or shock hazard, do not expose this product to rain or moisture.

	CAUTION RISK OF ELECTRIC SHOCK. DO NOT OPEN.	
<p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.</p>		



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.



This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

FCC NOTICE

This wireless audio link system complies with Part 90 of *FCC Rules*. There are two frequencies available for the system. You must get a license for each frequency you plan to use before you use the system (one license can include both frequencies). Licensability depends on how you will use the system.

Look in your local phone book for the nearest FCC office and contact them to get the necessary application.

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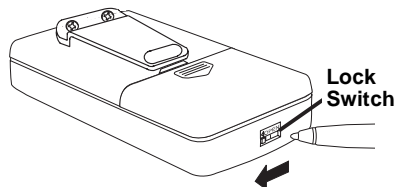
Optimus and RadioShack are registered trademarks used by Tandy Corporation.

USING THE SYSTEM

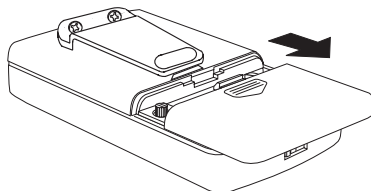
PREPARING THE TRANSMITTER

The transmitter requires a 9-volt battery for power. For the best performance and longest life, we recommend an alkaline battery such as RadioShack Cat. No. 23-553. You also need to set the transmitter to the desired channel. Follow these steps to set the transmitter's channel and install its battery.

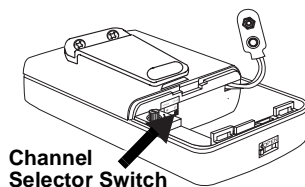
1. Using the tip of a pen, slide the battery compartment lock switch in the direction of the arrow.



2. Remove the transmitter's battery compartment cover by pressing it in the direction of the arrow.



3. Set the channel selector switch inside the battery compartment to the desired channel.



4. Install a 9-volt battery by attaching it to the battery clip inside the compartment.

5. Replace the cover and secure it with the lock switch.

Caution: Use only a fresh battery of the required size and type. Never leave a weak or dead battery inside the transmitter. Even leak-proof batteries can leak damaging chemicals.

The red BATT LOW indicator flickers when you turn on the transmitter. If the indicator stays on, replace the battery.

CONNECTING THE RECEIVER TO AN AMPLIFIER, MIXER, OR TAPE RECORDER

Connect the receiver to an amplifier, mixer, or tape recorder using either its **LINE** or **AUDIO** output.

To connect using the **LINE** jack, connect a shielded audio cable's phono plug to the receiver's **LINE** jack. Connect the other end to a line-level input on your amplifier, mixer, or tape recorder.

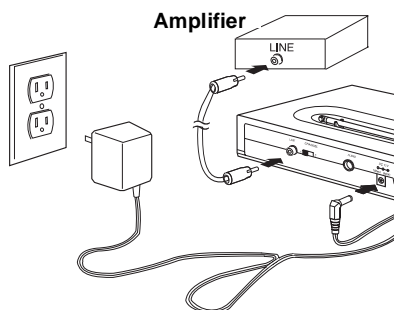
To connect using the **AUDIO** jack, connect a shielded audio cable's 1/4-inch mono phone plug to the receiver's **AUDIO** jack. Connect the other end to a microphone-level input on your amplifier, mixer, or tape recorder.

POWERING THE RECEIVER

The receiver operates from the supplied 12-volt DC power adapter.

Cautions:

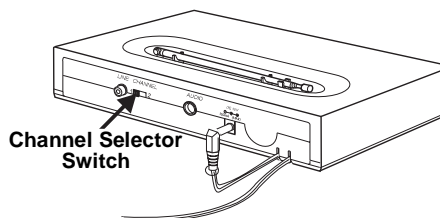
- Use only the supplied adapter. If you lose or damage this adapter, order a replacement from your local RadioShack store. Using other adapters could damage the receiver.
- Always plug the adapter into the receiver's **DC 12V** jack first, and always unplug the adapter from the AC outlet first.



1. Be sure the receiver's **POWER** button is out (off) before you connect the adapter.
2. Plug the adapter's small plug into the receiver's **DC 12V** jack.
3. Plug the other end of the adapter into a standard AC outlet.

SETTING THE RECEIVER'S CHANNEL

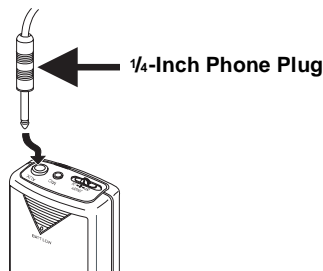
Set the channel selector switch on the back of the receiver to the same channel as the transmitter.



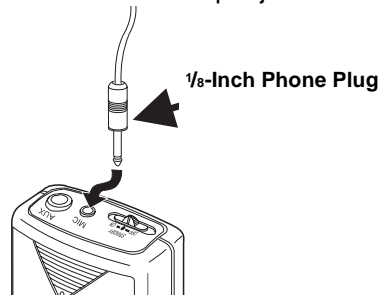
CONNECTING AN AUDIO SOURCE

You can connect a line-level source (such as an electronic keyboard, musical instrument microphone, or electric guitar) or a microphone-level source (such as a headset microphone) to the transmitter.

To connect a line-level source to the transmitter, use a cable that ends in a 1/4-inch phone plug. Plug one end of the cable into the transmitter's **AUX** jack. Plug the other end into the audio source's output jack.



To connect a microphone-level source to the transmitter, use a cable that ends in a $\frac{1}{8}$ -inch phone plug. Plug one end of the cable into the transmitter's MIC jack. Plug the other end into the audio source's output jack.



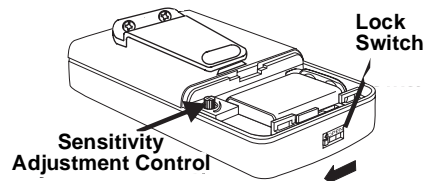
Note: If your audio source's cable does not end in the type of jack used by the transmitter, you can get an adapter from your local RadioShack store.

SETTING THE TRANSMITTER INPUT SENSITIVITY LEVEL

Your transmitter is designed to operate with musical instruments, microphones, and other audio devices. To get the best performance from the system, you need to set the transmitter input sensitivity to match the source.

The factory setting should be suitable for most uses. If you experience very low volume or distorted sound, follow these steps to adjust the sensitivity.

1. Using the tip of a pen, unlock the battery compartment lock switch and remove the battery cover.
2. Use a small flat-head screwdriver to adjust the sensitivity adjustment control in the battery compartment.



- If you need to set the receiver's volume control to a very high setting to be able to hear the audio source, turn the sensitivity adjustment clockwise about $\frac{1}{8}$ to $\frac{1}{4}$ turn and test the system again.
 - If the audio is distorted or if you need to turn the receiver's volume to a very low level to hear clear audio, turn the sensitivity adjustment counterclockwise about $\frac{1}{8}$ to $\frac{1}{4}$ turn and test the system again.
3. Replace the cover and secure it with the lock switch.

USING MORE THAN ONE WIRELESS SYSTEM

You need a compatible receiver for each wireless transmitter you plan to use. You can use up to three wireless systems at the same time. However, to avoid interference, you must set each system to operate on a different channel, and you must not set any two systems to adjacent channels. The following table lists valid three-channel combinations.

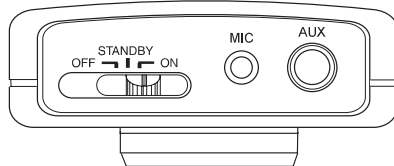
3-Channel Systems
A* C F
A* D F
B D G
B D H*
B E G
B E H*
C E H*
C F H*

* This wireless system is not available with Channels A and H, but other compatible systems do have this channel.

OPERATION

Notes:

- You must connect the receiver to an audio system and fully extend the receiver's antenna.
 - You must connect the transmitter to an audio source.
 - Leave the transmitter's **OFF/STANDBY/ON** switch set to **STANDBY** or **ON** whenever the receiver is on. This keeps the system from producing a loud hissing.
1. Turn on your amplifier, tape recorder, mixing board, and other necessary audio system components. Set their volume controls (or input level controls) to moderate settings.
 2. Set the receiver's **VOLUME** control to its minimum position.
 3. Press **POWER** to turn on the receiver.
 4. Set the transmitter's **OFF/STANDBY/ON** switch to **ON**. The receiver's **READY** indicator lights.

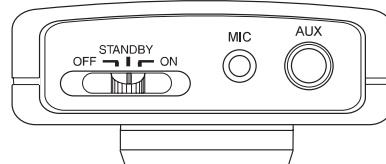


5. Turn on the audio source and adjust the receiver's **VOLUME** control to the desired level.

Note: Experiment with the receiver's volume setting and the settings of other components in your audio system for the best results. If you are using a source that has a variable output control such as a musical instrument, be sure that you have adjusted the volume with the instrument at the highest level you intend to use.

USING THE STANDBY SETTING

The transmitter's **STANDBY** setting lets you turn off the audio source signal without turning off the transmitter.



If you set the switch to **OFF** while your amplifier is on, there is a loud hiss. There is no hiss when you set the switch to **STANDBY**, but the audio source is not sent to the amplifier.

To conserve battery power, be sure to set the switch to **OFF** when you finish using the transmitter.

USING THE BELT CLIP

For hand-free carrying of the transmitter, slide the belt clip over your belt.

MAINTENANCE

Your Optimus 2-Channel Professional Wireless Audio Link System is an example of superior design and craftsmanship. The following suggestions will help you care for the system so you can enjoy it for years.



Keep the system dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.



Use and store the system only in normal temperature environments. Temperature extremes can shorten the life of electronic devices, damage batteries, and distort or melt plastic parts.



Keep the system away from dust and dirt, which can cause premature wear of parts.



Handle the system gently and carefully. Dropping it can damage circuit boards and cases and can cause the system to work improperly.



Wipe the system with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the system.

Modifying or tampering with the system's internal components can cause a malfunction and could invalidate your system's warranty and void your FCC authorization to operate it. If your system is not performing as it should, take it to your local RadioShack store for assistance.

SPECIFICATIONS

TRANSMITTER

Sensitivity:

MIC Input 5 mV \pm 5 dB @ \pm 12 kHz FM

AUX Input 80 mV \pm 5 dB @ \pm 12 kHz FM

Frequency Response 100–12,000 Hz

RF Output Power 50 mW (Max)

Current Consumption 38 mA (Average)

Battery Life (Alkaline) 8 Hour (Average)

Operating Frequencies:

Channel	Frequency
B	169.505 MHz
C	170.245 MHz
D	170.305 MHz
E	171.045 MHz
F	171.105 MHz
G	171.845 MHz

RECEIVER

Sensitivity 2 μ V (with S/N @ 20 dB)

S/N Ratio (@ 1mV Input) 90 dB, A Weighted

Output Power:

LINE 250 mV

AUDIO 16 mV

Total Harmonic Distortion 1.0% (Typical)

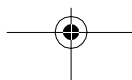
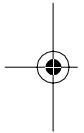
Power Requirements 12 Volts DC, 100 mA

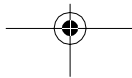
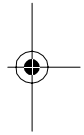
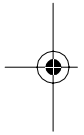
Operating Frequencies: (See table in Transmitter section)

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.



NOTES





Limited One-Year Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for one (1) year from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, Dept. W, 100 Throckmorton St., Suite 600, Fort Worth, TX 76102

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